

MINES AND MINING STOCKS

"DOLLAR ROCK"
ALMOST HERECost of Handling Copper Rock Be-
ing Gradually Decreased

How the head has been made to have the hand has been shown to good advantage in the mining industry. Not long ago, all drilling in mines was by hand with a hammer. The air drill came and cut costs in two. A few years ago a lighter type of drill, a one-man drill, was introduced, and drilling costs were again sliced. Some years ago, a few acres of the copper mining industry began to have visions of "dollar rock"—rock broken, hoisted, and on board cars at one dollar a ton. The recently published report on the Copper Industry in Michigan, compiled by R. E. Hore of the Michigan College of Mines for the State Geological Survey, shows that one mine is breaking, hoisting, hauling and stamping copper rock at \$1.14 a ton, that five mines are doing all this under \$1.50 a ton. Whereas in 1908 there were eight mines with costs over \$2.00, today there are but three. One mine has reduced its costs by \$0.51 in four years, others by \$0.18, \$0.21, and \$0.30. Every dollar saved in handling rock makes a mine so much the richer, increases by so much the resources, the taxable property of the state. There have been similar reductions in cost in the milling of copper. The best talent of the mining engineering profession is today being devoted to reducing costs. The men sent out from the mining schools, notably in copper mining from the Michigan College of Mines, have become "efficiency engineers," and the share they have had in reducing costs is fully recognized in the profession.

M. C. M. Students at Marquette.

Conservation realized as to every detail, a utilization of by-products, as complete as in a meat-packing establishment—this is what the Metallurgy class of the Michigan College of Mines had a chance to study last Saturday at the blast furnace and by-products plant of the Pioneer Iron company at Marquette, Michigan.

The company has its own mines and its own forests. From these it makes the charcoal iron of the trade which is used in car wheels and sets at a premium of \$2 a ton. Incidentally, in the making of charcoal into charcoal for its blast furnace, in the blast-furnace and other operations, it produces pig iron, molten slag, and even lime and lime kilns. The smoke and gases from the blast furnace, are all put to use. Some of the processes are just secret, because worked out at great cost by their expert chemists. So great is the economy attained that it has been said that the plant could be operated at a profit even if its iron did not sell for as much as its cost of production.

Two trips to the Marquette Smelter is an annual event for the classes in metallurgy. The men went down on Friday evening and returned Sunday morning, thus having a full day at the plant, and a chance to see both the forenoon and afternoon workings.

M. C. M. Winter Courses.

The general course in the preparation of mining at the Michigan College of Mines does not start until the winter term. The features of this course are Professor Spence lectures on the various phases of mining—prospecting, staking, engineering, mine ventilation, building, ventilation and the Saturday trips to the copper mines of the district. The men get up in the morning in time to catch a six o'clock car, and get to the mines in time to spend the whole forenoon underground, the mine captains leading them to the most interesting and deepest parts of the mines. Some thousand feet underground in an experience not to be forgotten by every mining student in the country.

The mining department of the college sends four other men, course work the winter term. Mine surveying, mining engineering, mine ventilation, mine management and accounts. Now courses are starting in all of the other departments. The winter term begins after the holidays, on January 7th. Many new students enter at this time every year.

"First Aid to Injured."

Mr. W. E. Sparks, new physical director of the Michigan College of Mines, offers for the winter term a course in First Aid to the Injured. This course will embody somewhat the usual features of such a course, but will consider especially accidents and injuries in mines, stamp mills and in the transporting of a man injured in a mine, mine hospitals, mine rescue, mine hygiene and poisoning in the mining industry.

The winter term begins after the holidays, January 7th. New courses begin in all the departments, especially in the Department of Mining Engineering. Many new students always enter at this time.

Lincoln Memorial society of New England plans elaborate celebration of emancipation day in Boston, January 5, 1913.

MICHIGAN COLLEGE OF MINES

F. W. McNair, President.

Located in Lake Superior district. Mines and mills accessible for college work. For Year Book and Record of Graduates apply to President or Secretary.

HOUGHTON, MICHIGAN.

BROKERS' GOSSIP

Michigan.

Exploratory work has been resumed at the Michigan property in Ontonagon county under the direction of Supt. Samuel Brady. A shaft has been sunk in the horizon of the Ogima fold, through the overburden and into settled territory. As a depth of 55 feet a crosscut has been started north. This crosscut is running in the hanging wall of the Ogima to tap the Hor-ler.

These operations are based on extensive diamond drilling work which was conducted at this property about a year and a half ago. The drills at that time showed copper bearing rock of a nature to warrant the further development work which is now going forward.

Centennial.

General underground conditions at the Centennial have been showing steady improvement of late. That is more noticeable in the quality of rock and in the general betterment of new and more northerly workings than any material advance in production. Many of the men working underground in the drifts toward the Wolverine territory are enthusiastic over the recent opening in this part of the mine and are purchasing the stock against time when these openings into this rich section of the Kearsarge side will become a dominant factor in the rock output of the Centennial mine. There are of course but a comparatively few laterals that are approaching the Wolverine line but the fact remains that while these drifts did not, until very recently show the quality of rock apparent for them, the display at present is far more encouraging and plainly indicates that the Centennial will come into its own in this part of the mine.

Of greatest importance concerning the general interest in the Centennial property is the increase in rock tonnage and in mineral output that is to be noticed at this property of late and that will make itself apparent in the output for the month of November. Every small mine in this section is trying to get out as much rock as possible while copper is at such a high figure as at present and in too many instances the mines are sacrificing quality for quantity, feeling that a poorer grade of rock can be sent to the mill and made a profitable proposition with copper at seventeen and a half cents than at twelve and a half. With many of them the one difficulty in making substantial increases in rock shipments lies in the labor scarcity.

It is creditable to the Centennial, therefore, to note that this mine is taking advantage of the higher price for copper without any diminution in the quality of rock. Shipments are now averaging close to 500 tons daily, whereas they formerly ran between 150 and 200 tons. And the rock is maintaining the standard of mineral extraction that has been observed for the past year. In fact there has been a slight improvement in copper content, and, as a result, the increase in rock shipments.

SUPERIOR & BOSTON.

Developments in the Property Gratiot to Management.

The Globe, Arizona, Silver Belt at 200 ft. says:

At the Superior & Boston recent events have been extremely gratifying to the management, for not only has considerable ore been encountered, but the vicinity of its discovery leaves a wide area for the probable trend of the ore body to be followed before the Superior & Boston boundary is reached.

On the east drift of the 8th level, practically 150 feet of commercial ore has been passed through and a rise being at that point to ascertain to what depth and extent the ore extends below. A vein also will be begun, after the drift has progressed a few feet further, to explore the ore body beneath. The ore in the face of the drift is of an unusually encouraging nature, some of it running 20 per cent copper. On the 10th level the ore body now being explored is 200 feet east of the ore heretofore developed and mined by this company, being in entirely new territory and as the west side lines of the Superior & Boston are all 1000 feet distant the outlook for the development of large bodies of ore seems exceptionally encouraging.

On the 11th level cross-cutting north toward the Old Dominion fault is still progressing and the great change of the character of the country being cut during the past few days leads the management of the mine to believe that it is possible they may be in proximity to the vein. South on the 12th level in drifting on what appears to be the Great Eastern vein some chalcopryite and bornite has been encountered.

The significance of any material development at the Superior & Boston to the whole Copper Hill district as well as to this section of the county in general makes good news concerning the property welcome information to the entire Globe-Miami district.

Moreover the integrity and competence of the management and its resolute perseverance in the face of a long period of inconclusive development of ore makes the present encouraging showing a matter of satisfaction to everyone interested in the mining development of this region.

W. E. Taylor, 60 Gainesville, Texas, the other day enjoyed the first train ride of his life.

NORTH BUTTE
IN GOOD SHAPEOre Shipments Larger and Re-
serve Is Increased

The North Butte Mining company will increase its production this month to the extent of about 200,000 pounds, and this increase will be maintained. It has been a long time since the company has been in as good position to turn out the red metal as at present. On every level from the 1,800-level to the 2,500-foot level mining is being done and ore is being hoisted, while on the 2,800-foot level the work is being very largely confined to development at the present time, only a very small amount of ore going to the surface. While the ore shipments have been increased, the reserve supply is also being increased. A few months ago it was thought that it would be necessary to close down the Speculator shaft in order to admit of retimbering, but an examination just completed shows that the shaft is in much better condition than was expected, and it has been decided that work can be carried along at least during the entire winter without the least interruption. In the meantime the work on sinking the shaft of the Granite Mountain will be rushed along. A depth of 2,400 feet was reached a few days ago and a station is being cut. This work completed there will be a crosscut of about 75 feet to connect with the other workings and then shaft sinking will be resumed. It is probable that the shaft will be carried down 800 feet further. An examination of hoisting apparatus is being conducted with a view of arriving at a conclusion as to providing a better and more economical means of bringing ore to the surface than by steam. Some very favorable reports have been received as to electricity, and an investigation is now proceeding looking to the cost of installing in the Granite Mountain shaft an electric hoist of the latest and most improved pattern.

GOLDFIELD CONSOLIDATED.

We understand from an authoritative source, say Thompson, Towle & Co., that developments at the Goldfield Consolidated on the 1300-foot level of the Clement have opened up quite a body of ore averaging approximately 30 to a ton gross.

This ore differs from the gold milling ore which is the mainstay of the property; it contains copper and is smelted direct, being sent to the International Smelter at Toole, where a rate of \$2 is obtained. After allowing for freight mining and all expenses it should return a profit of around \$45 per ton. This ore body is located in the deepest workings of the mine and is said to be adjacent to the underlying state, which formation continues in depth. In view of this it is possible that the ore body may show persistence and continue downward.

The final report of Goldfield Consolidated for September, which has just come to hand, states that during the month several discoveries of considerable importance were made. A large majority of these, however, were confined to the intermediate and upper levels. The great future of Goldfield is in depth, and the further opening of the ore body on the 1300-foot level of the Clement is, however, of more importance, and this will be watched with interest.

STOCKS

Boston—European markets were upset again this morning over the Balkan situation, although current newspaper comment did not indicate any special reason for it. As a result American stocks were off in London and opened lower here. The professional trading element being bearish almost to a man, advantage was taken of the foreign unsettlement to make an effort towards lower prices. This succeeded in a measure but not to any extent. The trading was all professional.—L. J. Sturgis.

BOSTON STOCKS.

(From Paine, Webber & Co., and Gay & Sturgis.)	
Amalgamated	83 1/2
Adventure	5 1/2
Algonquin	41
Algonquin	35 1/2
Aradon	25 1/2
Almbeck	32 1/2
Aris, Commercial	1 1/2
Boston Corbin	5 1/2
Butte & Balk	4 1/2
Butte & Superior	46
Copper Range	56 1/2
Calumet & Arizona	78 1/2
Calumet & Hecla	55 1/2
Centennial	19 1/2
China	46 1/2
Daily West	3 1/2
East Butte	14 1/2
Franklin	95
Granby	73
Greene Cananea	95
Hancock	25 1/2
Hedley Gold	25 1/2
Indiana	16 1/2
Inspiration	19 1/2
Isle Royale	35 1/2
Keweenaw	5 1/2
Lake Copper	29 1/2
Lake Superior	5 1/2
Mam	6 1/2
Miami	27 1/2
Michigan	13 1/2

COME IN!
You Will Receive Courteous Treatment and
Be Shown the Way to Success
and Happiness

Mohawk	64	64 1/2
Mayflower	16 1/2	16 1/2
North Lake	3 1/2	4
North Butte	35 1/2	35 1/2
Nipissing	8 1/2	8 1/2
Old Dominion	57 1/2	57 1/2
Secoda	109	110
Shattuck	3	3 1/2
Old Colony	10	10
Juney	86	87
Day Consolidated	21 1/2	21 1/2
Superior & Boston	2 1/2	2 1/2
Superior	40 1/2	44 1/2
Shannon	14	14 1/2
Shattuck	32	32 1/2
Pamarrick	41	42 1/2
Utah Copper	62 1/2	63
Victoria	2 1/2	2 1/2
Algonquin	4 1/2	4 1/2
Wolverine	74	74
Wyandot	14	15

NEW YORK STOCKS.

Amalgamated	83 1/2
Amalgamated	42
Smelters	79 1/2
Reading	170 1/2
Union Pacific	171 1/2
Consolidated Gas	141 1/2
Elgin	33 1/2
Missouri Pacific	63 1/2
Pennsylvania	123
Northern Pacific	123 1/2
St. Paul	113
Tenn. Copper	41
Can. Pacific	263
Steel Common	74
South Pacific	111

CURB STOCKS.

J. A. Minnear & Co. say today:

The markets were a trifle lower today. Call money was marked up to 12 per cent and this caused a reaction of a little over a point in the New York list. The copper followed the lead of the rails. The announcement of a 50-cent extra dividend on Nevada Cons. failed to create even a ripple. There was a little demand for South-western Miami. South Lake has a good-looking amygdaloid vein, in bottom of shaft. They are still in the vein, and it shows well mineralized for six feet. S. & B. 5th level drift is in ore for 220 feet, and upraise is in better grade of ore. Face of upraise reported now running 10 per cent copper. Besides the Nevada Cons. dividend today of 57 1/2 cents, payable Dec. 31 to stock of record Dec. 6, the following dividends were declared: Utah Copper, 75 cents, payable Dec. 31 of record Dec. 6; Wetherill regular quarterly 5 cents, payable Jan. 20 of 12 1/2 cents, payable Feb. 15; Nevada-Douglas 12 1/2 cents payable Feb. 1 of record Jan. 10.

J. A. Minnear & Co.

Algonquin	35 1/2
Almbeck	32 1/2
Arnold	1 1/2
Butte & Balk	4 1/2
Butte & Superior	2 1/2
Chemung	63 1/2
Chief Consolidated	1 1/2
Columbus Cons.	15 1/2
China	46 1/2
Calumet & Mont.	18 1/2
Corbin Copper	25 1/2
Denn Arizona	6 1/2
Goldfield Cons.	2 1/2
Hondago	4 1/2
Butte & London	45 1/2
Houghton	4 1/2
Houghton Copper	8 1/2
Homestake	98
Hancock	25 1/2
Indiana	16 1/2
Inspiration	19 1/2
Keweenaw	5 1/2
Keating	1 1/2
Lake Rose	2 1/2
Lake Copper	29 1/2
L. S. & A.	15 1/2
Mayflower	16 1/2
Miami	27 1/2
New Keystone	2 1/2
Nipissing	8 1/2
North Lake	3 1/2
Oneco	2 1/2
Old Colony	9 1/2
Ray Consolidated	21 1/2
Ray Central	2 1/2
Shattuck	32 1/2
Santa Rosalia	22 1/2
South Butte	14 1/2
Superior & Globe	37 1/2
Superior & Boston	2 1/2
South Lake	7 1/2
Tonopah	6 1/2

ENGLAND BUYING COPPER.

As German copper consumers closed their plants yesterday in observance of a national holiday in that empire, no additional purchases of the red metal were made for their account. English manufacturers of electrical equipment and brass products, however, continued to contract extensively with the American producers covering principally their December and January requirements. The metal thus brought aggregated 3,000,000 pounds at 17 1/2 for the electrolytic and 17 1/4 for the casting grades. Sales agents for the domestic producers experienced considerable difficulty in arranging for shipments of the metal which had recently been purchased by German consumers, as it was discovered that no additional freight room in ships sailing from New York to Rotterdam and Hamburg could be obtained until December 3 and 14 respectively. Domestic consumers in the Stoughton Valley bought moderately from the producers for January delivery and much larger purchases for that month are expected to be made by these users within the next few days.

CLASSIFIED ADS

WANTED.

3 CENTS A POUND paid for clean white cotton goods. No scraps. Calumet News office.

HELP WANTED—FEMALE.

WANTED—Woman for general housework. Small family. W. G. Mehrens, Wolverine.

FOR RENT.

FOR RENT—A desirable room, suitable for one or two young men, every modern convenience, including electric light, steam heat, bath, etc. Apply J. F. G. News office.

LOST.

LOST—Female bound, Yellow with white breast, white star on forehead and white nose. Long ears. Finder notify Laurence Capello, 112 Onondaga St., Laurium and receive reward. Dec. 2

EMPLOYEES

OF THE

Calumet & Hecla M'ng Co

Who wish to sell their houses or buy houses on Co. Land: who have rooms to rent or who wish to rent rooms, are invited to advertise in this column without any expense.

FOR SALE—8-room house, 4982 Elm St.

FOR RENT—Rooms, Apply 3931 Temple St.

5 rooms to rent. 341 Caled St.

FOR SALE—5-room house, 2016 Calumet ave.

Paine, Webber & Comp'y

BOSTON, MASS.
BANKERS AND BROKERS.
PRIVATE WIRE.

Boston, Mass., Nov. 25.—Both markets today reached a lower level. Tight money was the excuse for the reaction in New York and the local movement was sympathetic. On scattered selling, Granby, Copper Range, Mayflower and Old Colony lost about a point. The volume of business was very small but the largest part of the orders were on the selling side. The market is still almost entirely limited to operations by our traders and liable to move much either way until there is more widespread general interest.

W. L. STANNARD, MGR., CALUMET BRANCH

J. A. MINNEAR & CO.
BROKERS

MARKETS AT A GLANCE

NEVADA CONS. DECLARED EXTRA DIVIDEND OF 50 CENTS. CALL MONEY WAS MARKED UP TO 12 PER CENT. MARKETS SLIGHTLY LOWER.

Salt Lake, Cobalt and Tonopah Stocks Quoted Constantly
Calumet, Mich. Laurium Mich.

Members Boston and
New York exchanges

Private Wires to all the
Leading Exchanges

GAY & STURGIS

Calumet Branch
Phones 813-814-829

Roy A. Young
Resident Manager

FOR SALE—Five-room house, 852 Al-
bion.

FOR SALE—Seven-room house, 363
Caledonia St., Calumet, Mich.

FOR SALE—10 Room House. Apply
4225 Acorn St.

FOR SALE—7 room house, 3982 On-
ondaga Road, Newtown.

FOR SALE—Lot 5, block 3 Wolverine
St. Florida. Apply at Mrs. Chap-
man's boarding house, 122 Kearsarge
St. south.

FOR SALE—1525 Hecla St.

FOR SALE—7-room house, 4087 Cone
St.

FOR SALE—House, No. 4026 Oak St.,
Yellow Jacket.

FOR SALE—3129 Tunnel St.

FOR SALE—5-room house, cheap, 345
Caledonia St.

FOR SALE—House, 9 rooms, bath—
4335 Elm St., Yellow Jacket.

FOR SALE—House, No. 457, Caledonia
St., Albion.

FOR SALE—7-room house and barn
2507 D St.

FOR SALE—House No. 3133 Tunnel
St., Swedetown.

FOR SALE—6-room house, No. 3044
Swedetown road. Apply on premises

FOR SALE—House, No. 4083 Elm St.,
Yellow Jacket.

FOR SALE—Nine room house with
bath room, stone foundation, steam
heat, electric light and hardwood floors,
downstairs, large attic, also front and
back stairs. Terms reasonable. Apply
1503 School St.

FOR SALE—9-room house, modern
conveniences steam heat, good fu-
elation and plumbing. Apply 650 Cam-
berland St. Calumet.

FOR SALE—9-room house, summer
kitchen, coal shed, barn room for 2
horses, etc. Apply 1505 Hecla St.,
Hecla. A \$2,500 house for \$1,500.

FOR RENT—8 room house, No. 1
Franklin St. Florida.

FOR SALE—4-room house, No. 499
behind Calumet dam, inquire with

FOR SALE—7 room house, 3230 Ridge
St.

FOR RENT—Four rooms, 4261 Cor-
11th and Pine Sts.

FOR SALE—House, 1516 Hecla St.

FOR SALE—8-room house, 730 Water-
works St.

FOR SALE—8-room house, No. 279,
on Caledonia St. Particulars at
Wickstrom & Co.'s store, Pine St.

FOR RENT—One furnished room,
4225 Acorn St.

FOR SALE—Eight room house, 3212
Ridge St.

FOR SALE—Six-room house, 1834
Laurium St.

WANTED—Boarders, 2957 Wedge St.
Calumet.

FOR SALE—11-room house, Apply
250 Rockland St.

FOR SALE House 1549 Hecla St.

FOR SALE—13-room house, 1602
Laurium St.

LEGAL ADVERTISEMENT.

Nov. 4-11-18-25
STATE OF MICHIGAN.

The Probate Court for the County of
Houghton.

At a session of said Court, held at
the Probate Office, in the Village of
Houghton, in said County, on the
first day of Nov. A. D. 1912.

Present: Hon. George C. Bentley,
Judge of Probate.

In the Matter of the Estate of Ru-
dolph E. Nelson, Deceased.

Gust E. Nelson, Administrator of
said Estate, having filed in said Court
his petition praying that the time for
the presentation of claims against said
estate be limited and that a time and
place be appointed to receive, exam-
ine and adjust all claims and demands
against said deceased by and before said
Court.

It is Ordered, That four months
from this date be allowed for creditors
to present their claims against said
estate.